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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,481	08/28/2003	Robert B. Lowrance	007024	6152

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11/21/2005

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EXAMINER

LOWE, MICHAEL S

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/650,481	Applicant(s) LOWRANCE ET AL.	
	Examiner M. Scott Lowe	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 and 18-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/19/05, 9/15/04, 5/12/04, 4/13/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Claims 1-7, 18-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/3/05.

Claim Objections

Claim 8 is objected to because of the following informalities: line 5 should be "coupled" not "couple". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugita (US 5,332,013).

Re claim 8, Sugita teaches a method of unloading a substrate carrier 1 from a moving conveyor (30/31 or 30/40), comprising:
transporting a substrate carrier 1 via a conveyor (30/31 or 30/40);
about a horizontal axis, rotating an arm 31 having an end effector (not numbered) coupled thereto;

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substantially matching a velocity of the end effector to a velocity at which the substrate carrier 1 is transported by the moving conveyor (30/31 or 30/40);
contacting the substrate carrier 1 with the end effector; and
lifting the substrate carrier 1 from the conveyor (30/31 or 30/40).

Re claim 13, Sugita teaches a method of loading a substrate carrier 1 onto moving conveyor (30/31 or 30/40), comprising:
supporting a substrate carrier 1 via an end effector (not numbered) coupled to a rotatable arm 31;
about a horizontal axis, rotating the arm 31;
substantially matching a velocity of the end effector velocity at which the conveyor (30/31 or 30/40) moves; and
lowering the substrate carrier 1 onto the conveyor (30/31 or 30/40) while continuing to substantially match the velocity of the end effector the velocity of the conveyor (30/31 or 30/40).

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9,10,14,15 are rejected under 35 U.S.C. 102(b) as anticipated by Sugita (US 5,332,013) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sugita (US 5,332,013) in view of Kimura (US 6,439,822).

Re claims 9,14, Sugita teaches constraining the end effector to have a fixed orientation as the arm 31 rotates (figure 1).

If it is determined that the end effector is not fixed, then Kimura teaches (figure 1,4,23,etc.) that it is known to constraining the end effector (52 or S1,S2, etc.) to have a fixed orientation as the arm 22 rotates in order to protect the carrier allow fewer movements of the carrier by keeping one orientation and thus reducing the forces the carrier would be subjected to. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constrained the end effector of Sugita to have a fixed orientation as the arm 31 rotates in order to protect the carrier by allowing fewer movements of the carrier by keeping one orientation and thus reducing the forces the carrier would be subjected to.

Re claims 10,15, Sugita teaches the end effector (figure 1) comprises a cup-shaped end effector (not numbered) and the fixed orientation of the end effector is such that an open side (open on three sides in figure 1) of the cup-shaped end effector is oriented upwardly.

If it is determined that the end effector does not comprise a cup-shaped end effector with the fixed orientation of the end effector is such that an open side of the cup-shaped end effector is oriented upwardly, then Kimura teaches it is known to have the end effector (52 or S1,S2) comprise a cup-shaped end effector with the fixed

orientation of the end effector is such that an open side of the cup-shaped end effector that is oriented upwardly in order to handle carriers with mounting connections require that type of end effector coupling arrangement. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the end effector (52 or S1, S2) comprise a cup-shaped end effector with the fixed orientation of the end effector is such that an open side of the cup-shaped end effector that is oriented upwardly in order to handle carriers with mounting connections require that type of end effector coupling arrangement.

Claims 11, 12, 16, 17 are rejected under 35 U.S.C. 102(b) as anticipated by Sugita (US 5,332,013) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sugita (US 5,332,013).

Re claims 11, 12, 16, 17, Sugita teaches the substrate carrier is a single substrate carrier 1 in a vertical orientation (vertical orientation is can be read as many things as currently worded) during the transporting step.

If it is determined that the substrate carrier of Sugita is not is a single substrate carrier in a vertical orientation, then it would have been obvious to one of ordinary skill in the art at the time the invention was made to have increased versatility thru having any type of carrier and orientation in order to be capable of integrating with the various types of carrier known transport systems.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Scott Lowe whose telephone number is (571) 272-6929. The examiner can normally be reached on 6:30am-4:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msl



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